

Cybersecurity Course Offerings

CYS I Introduction to Cybersecurity

In today's world, no one is safe from cyber-attacks, but everyone can be prepared. This course will teach you how malicious actors use social skills and technology to facilitate cyber-attacks and provide you with the tools and information you need to defend against those attacks. Whether you pursue one of the many available jobs in cybersecurity or just want to secure your own privacy, you'll learn how to make the Internet safer. This online class has optional live sessions.

CYS II Cybercrime and Governance

Cybercrime is one of the biggest threats companies face on a daily basis, and they are constantly looking for new hires to help protect them. In this course, you will get a firsthand look at the methods used to commit cybercrimes. You will also learn how governments detect, investigate, and stop these crimes, and become familiar with the laws and policies in place to deter cybercriminals. This online class has optional live sessions.

CYS III Modern Cybersecurity

Just as technology is constantly evolving, so too must cybersecurity to keep pace with changing trends. In this class, you will learn about the changing landscape of cybersecurity, emerging technologies that are likely to be targeted, and new forms of cyber-attack being launched. By the end of the course, you will be able to implement the most up-to-date practices in cybersecurity in order to protect against attacks. This online class has optional live sessions. Course Topics Emerging Technologies in Cybersecurity: Students will learn how technologies like Internet of Things (IoT) devices, cloud computing, and 5G can improve online quality of life and safety, while simultaneously posing a threat to security and privacy. The Internet of Things (IoT): IoT devices are those embedded with technologies such as sensors or software, such as Amazon's Alexa. Students will focus on how these devices create new vulnerabilities for cyber-attackers to exploit. Cyber-Physical Attacks: Cyber-physical attacks - digital attacks to compromise physical systems - present a particular threat to our safety. Students will learn about the history of cyber-physical attacks and the threats they present today Stuxnet: Students will learn how Stuxnet - the world's first digital weapon - operates, and how to defend against it.

CYS IV Network and System Security

Modern organizations know that even the strongest systems can be vulnerable to cyber-attacks. As a result, jobs in cybersecurity are rapidly expanding as companies look to secure their digital assets. This course will teach you how to secure those assets by identifying and fixing potential security vulnerabilities. By the end of the course, you will be able to identify and remedy common network and systems vulnerabilities. This online class has optional live sessions. Course Topics Networks: Students will learn about the different types of network attacks and how to deploy countermeasures against them. Endpoint Devices: Students will study how to examine cyber-attacks on endpoint devices and

formulate protection strategies to defend against these attacks. Encryption Protocols: Students will study how to design secure networks by implementing cryptographic protocols. Security, Orchestration, Automation, and Response (SOAR): Students will learn how to utilize the SOAR framework to help security teams manage and respond to security warnings and alarms.

CYS V Cyber Forensics

When cybercrimes do happen, you need to know how to respond. This course examines the tools and techniques used to perform cyber forensics and conduct investigations into cybercrimes. By the end of the course, you'll be able to gather and analyze important digital evidence and gain skills in analyzing cybercrime that are in demand from companies across the country. This online class has optional live sessions.

CYS VI Ethical Hacking

To stop a hacker, you need to be able to think like a hacker. In this course, you will learn hands-on techniques for attacking and penetrating networks and systems. You will be prepped with tools to launch these offensive tactics, and then complete a hands-on project where they are asked to ethically hack a real system. This online class has optional live sessions.

ITM I Introduction to Information Technology Systems

Information Technology continues to be one of the most important topics in the modern workforce. This course will introduce you to the fundamentals of the field and teach you a range of valuable professional skills, including how to set up operating systems, how to troubleshoot problems, and how to build a computer. By the end of this course, you'll be prepared to take your next steps in IT and start solving technology problems on your own. This online class has optional live sessions.

ITM II Networking Technologies and Telecommunications

Whether a workplace is just a few people connected to a wireless router, or a financial giant, wired directly into the Nasdaq, it likely relies heavily on Network Technologies. This course will teach you how networks work, and how to set up and secure them. By the end of this course, you will be able to manage and maintain a range of different network types. This online class has optional live sessions.

ITM V - Information Security and Data Protection

Imagine a world where people were trying to steal from every home, workplace, or bank - all the time. That's the world of digital security. Because it's cheap to launch attacks on every system you can find, virtually every organization and individual is always under some level of digital attack. This course will teach you how to help defend against this constant assault and keep valuable information and critical systems safe. This online class has optional live sessions.

CLOUD 0 Google Cloud Computing Foundations

This course will introduce you to the fundamentals of Cloud Computing, Infrastructure and Networking, and will explore how the cloud is used in a range of situations, including IT, App Development and Machine Learning. By the end of the course you will know what the cloud is, and how to use it effectively. This course uses the Google Cloud Platform (GCP) and was built in concert with the Google Cloud Learning Services team. This online class has optional live sessions.